

KA-87/KA-57

INSTRUCTION MANUAL

KENWOOD

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Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.

We appreciate your patronage and take pride in the long tradition of quality components, that our company represents.

So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features, and system-connection considerations, so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability, we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Contents

Caution : Read the following pages marked  carefully to keep your safety.

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Before applying power

⚠ Caution : Read this page carefully to keep your safety.

Important!

Canada, U.K., Australia and Europe

Units shipped to the Canada is designed for operation on 120 volts AC only. Units shipped to European countries are designed for operation on 220 volts AC only. Units shipped to the U.K. and Australia are designed for operation on 240 volts AC only. These units are not equipped with an AC voltage selector switch and the discussion of such a switch that follows should be disregarded.

All other countries

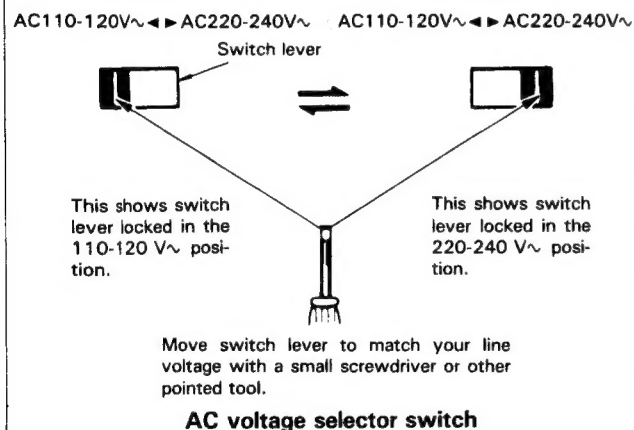
Units shipped to countries other than the Canada, U.K., Australia and European are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

This unit operates on 110-120 or 220-240 volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.



For United Kingdom

The mains plug must be removed from the wall socket prior to any internal examination.

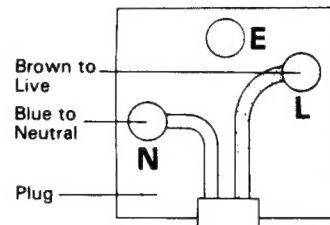
Important

The wires in this mains lead are coloured in accordance with the following code:

Blue Neutral
Brown Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire colour	Plug terminal marking
Blue	N or Black
Brown	L or Red



Notes:

- 1) If a 13-amp plug is used, this must be fitted with a 5-amp fuse.
- 2) If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

Safety precautions

Safety precaution for AC plug (for Canada)

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

Important safeguards

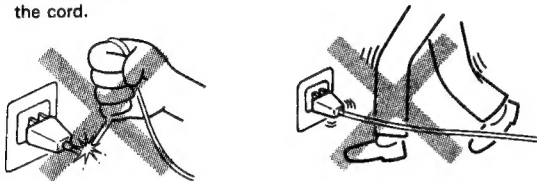
⚠ Caution : Read this page carefully to keep your safety.

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

1. Power sources — The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

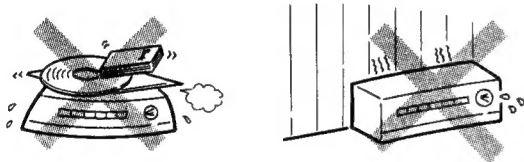
2. Power-cord protection — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

Never pull or stretch the cord.

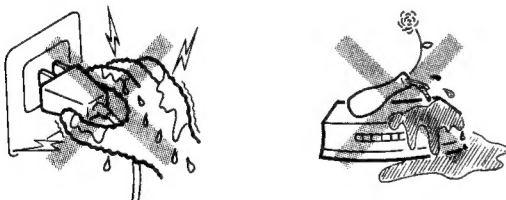


3. Ventilation — The unit should be situated so that its location or position does not interfere with its proper ventilation.

To maintain good ventilation, do not put records or a table-cloth on the unit. Place the unit at least 10 cm away from the walls.



4. Water and moisture — The unit should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

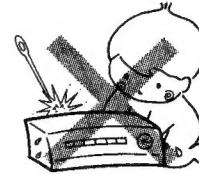


5. Temperature — The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

6. Heat — The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.



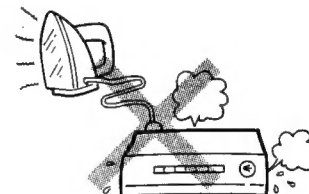
7. Electric shock — If a metal object, such as a hair pin or a needle, comes into contact with the inside of this unit, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this unit.



8. Enclosure removal — Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



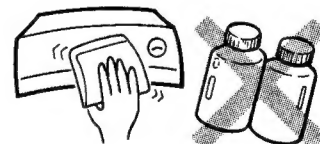
9. AC outlets — Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical units, such as an iron or toaster, to it to prevent fire or electric shock.



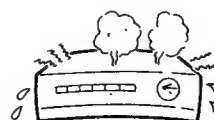
The maximum capacities indicated for the AC outlets on the rear panel of the this unit are as follows.

1. SWITCHED outlets ; 100 W (Total)
2. UNSWITCHED outlet ; 100 W

10. Cleaning — Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.

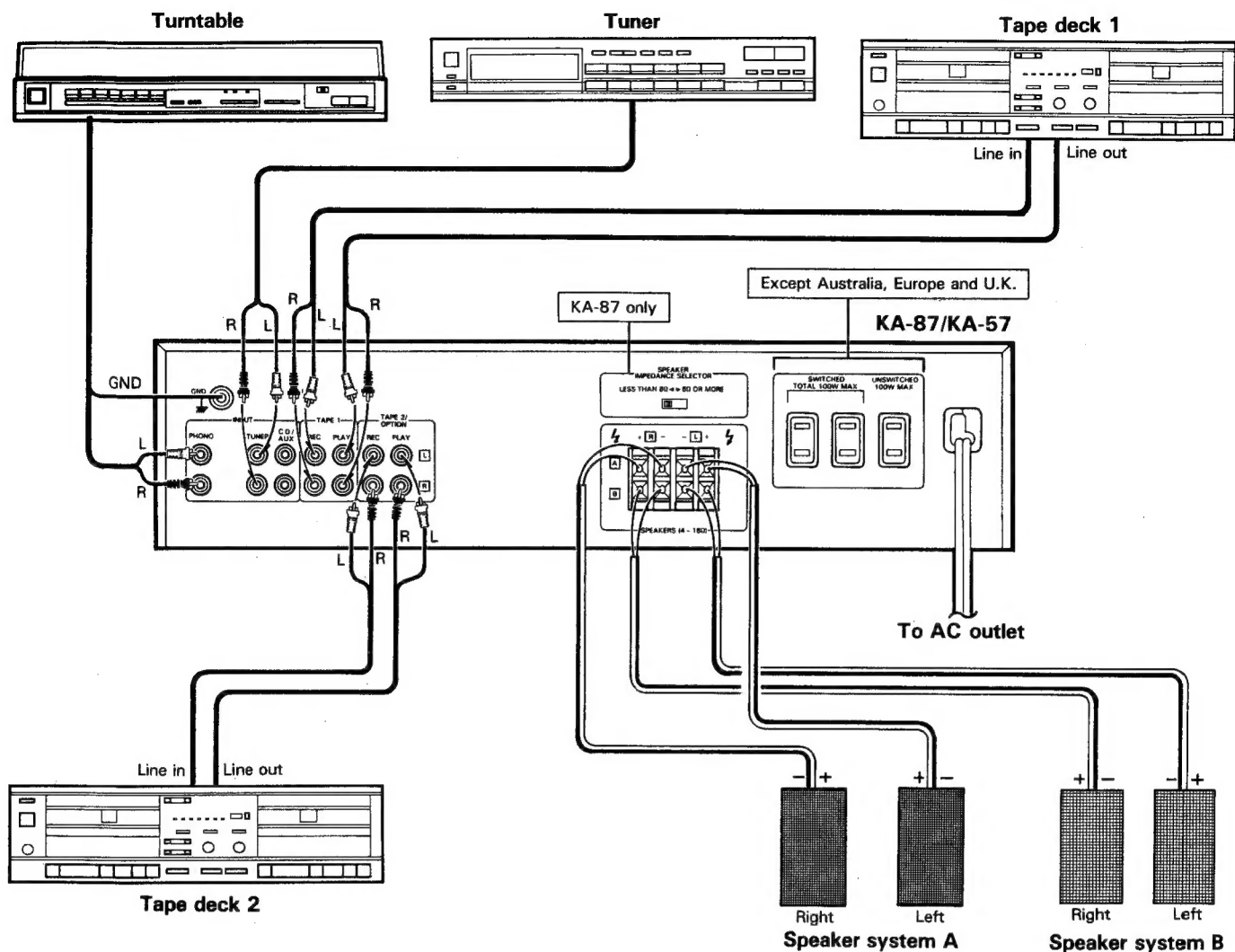


11. Abnormal smell — If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service station.



POWER OFF!

System connections



Speakers

This amplifier has two pairs of speaker terminals, SPEAKERS A and SPEAKERS B.

Connecting one speaker system

Connect speakers rated at 8 ohms or more (USA and Canada), 4 ohms or more (Others) to the SPEAKERS A terminals.

Connecting two speaker systems

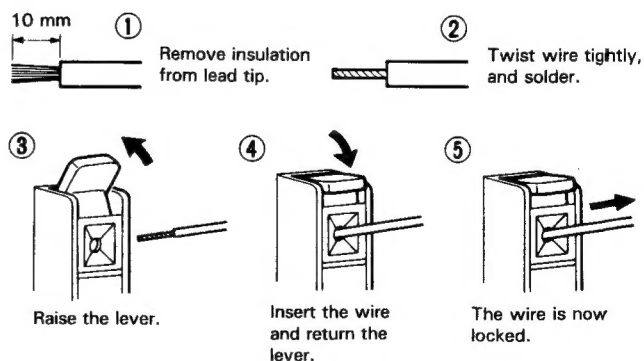
To connect an additional pair of speakers, use the B terminals. In this case, each speaker must be rated at 8 ohms or more (USA and Canada), 4 ohms or more (Others).

Connection with speaker cords

1. Connect the left speaker to the **L** SPEAKERS terminals and the right speaker to the **R** SPEAKERS terminals.
2. Be careful that wires do not contact adjacent terminals.
3. Be sure to connect the (+) terminal of the speaker to the (+) terminal of the amplifier.

Never short the (+) and (-) terminals.

Erroneous connection of speakers may result in poor imaging or unnatural sound.



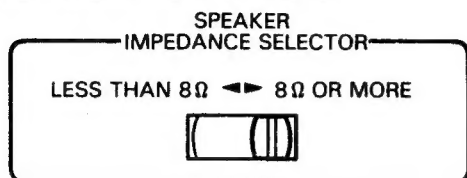
Speaker lead connection

Setting SPEAKER IMPEDANCE SELECTOR (KA-87 only)

According to the impedance of the speakers used, set the SPEAKER IMPEDANCE SELECTOR at rear as follows.

4 Ω , 6 Ω → "LESS THAN 8 Ω "

8 Ω , 16 Ω → "8 Ω OR MORE"



Notes:

1. During speaker system connection and operation of SPEAKER IMPEDANCE SELECTOR, set the POWER switch to OFF.
2. Check that the connected lead wires of the speaker systems do not contact with other jacks or terminals.

Turntable

The PHONO jacks of the amplifier can accept a turntable with an MM type phono-cartridge.

Your stereo turntable has RCA pin-plug cords that is terminated with phono plugs. Plug the left channel plug into the \square and the right channel plug into the \square PHONO jacks.

If the turntable has a ground wire, connect it to the unit's GND terminal to avoid hum.

Tuner

Use the TUNER jacks for connection to an FM stereo or AM-FM stereo tuner.

Connect the left channel of the tuner to the \square TUNER input jack and the right channel of the tuner to the \square TUNER input jack.

CD/AUX

To these jacks, high-level signal sources such as, CD player, tuner, extra tape decks, TV, VTR sound outputs, etc. can be connected.

Ground

For maximum safety and minimum interference connect the GND terminal to a good earth ground if practicable. A good earth ground is a metal stake driven into moist earth. However, never use a gas pipe for this purpose.

Tape deck

If only one tape deck is to be connected to the system it is recommended that it be connected to the jacks marked TAPE 1.

Tape deck input and output cables are normally terminated with phono plugs.

Playback

Plug the left and right output cables of the tape deck into the \square and \square TAPE 1 PLAY jacks.

Record

Plug the left and right input cables of the tape deck into the \square and \square TAPE 1 REC jacks.

Second tape deck

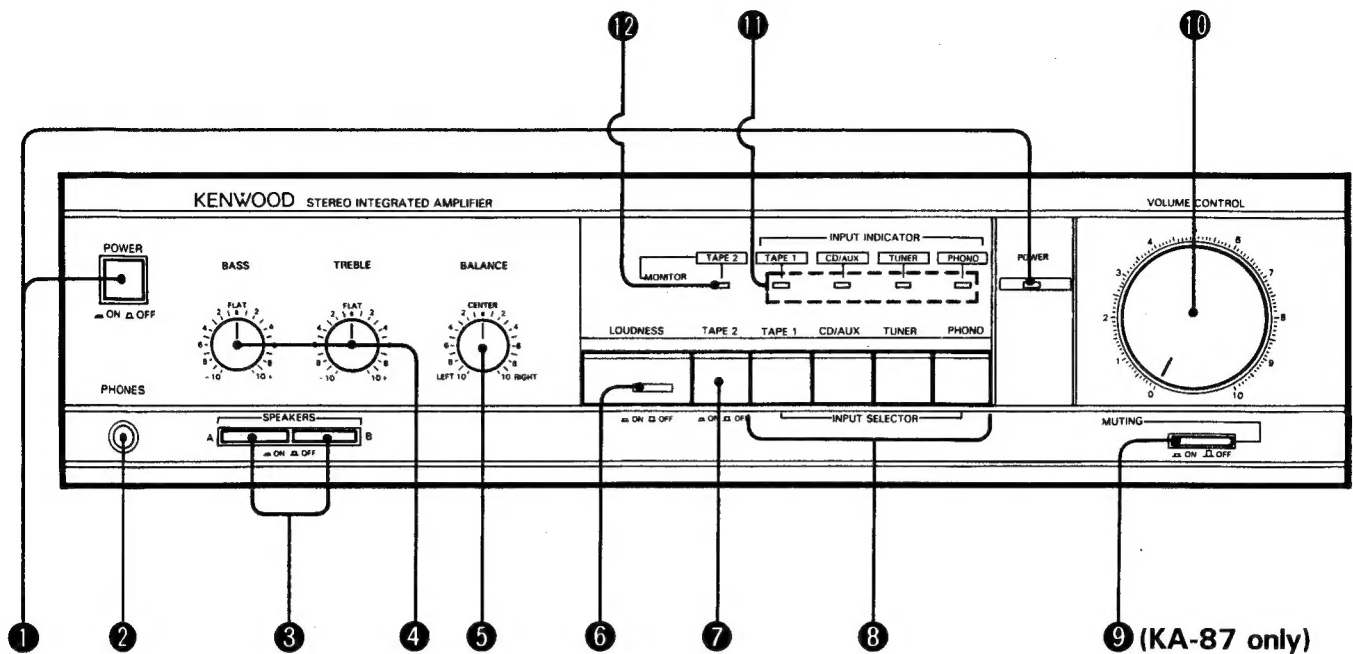
Plug the input and output cables from the second tape deck into the REC and PLAY jacks marked TAPE 2.

AC outlets (Except Australia, Europe and U.K.)

The AC outlets on the rear panel of the power supply unit may be used to supply power to other components in the system, such as turntables, tape decks, etc. Never connect equipment whose power consumption exceeds the maximum value shown at each outlet.

1. **SWITCHED outlets:** These outlets supply power only when the unit is turned on. The maximum total capacity (both outlets) is 100 watts.
2. **UNSWITCHED outlet:** The outlet provides power when the unit is plugged into an active AC wall outlet, regardless of the setting of the POWER switch. The maximum capacity is 100 watts.

Controls, indicators and connectors



1 POWER switch/POWER indicator

Press the POWER switch to turn on power. The POWER indicator lights up.

2 PHONES jack

Stereo headphones are plugged into this jack.

3 SPEAKERS switch

A, B OFF — This position silences all speakers to permit private use of headphones.

A ON — Activates speakers connected to the SPEAKERS A terminals on the rear panel.

B ON — Activates speakers connected to the SPEAKERS B terminals on the rear panel.

A, B ON — Activates speakers connected to the SPEAKERS A and B terminals simultaneously.

4 TONE CONTROL knobs

BASS — Turn from the FLAT position to the right to increase bass response.

Turn to the left to lower bass response.

TREBLE — Turn from the FLAT position to the right to increase treble response.

Turn to the left to reduce treble response.

5 BALANCE control knob

This control is to balance left and right channels when an imbalance exists from the sound source, or to correct acoustic imbalance due to room conditions.

Turn the control from the CENTER position to the left to reduce the right channel.

Turn to the right to reduce the left channel.

6 LOUDNESS switch

This switch is for listening at very low volume level. Press this switch to boost the low level.

7 TAPE 2 selector switch

To listen to a source of the tape deck, etc., connected to the TAPE 2 jacks, press this switch.

Note:

The TAPE 2 selector switch has a priority over the input selector switches. To listen to the source other than tape deck 2, be sure to set this switch to OFF.

8 INPUT SELECTOR

PHONO — Selects the program source played on the turntable.

TUNER — Selects the tuner connected to the TUNER jacks.

CD/AUX — Selects the source connected to the CD/AUX jacks.

TAPE 1 — Press this switch to play back a tape deck connected to TAPE 1 jacks.

Note:

When TAPE 1 and TAPE 2 switches are pressed, TAPE 2 setting has priority.

9 MUTING switch (KA-87 only)

When this switch is pressed, the overall sound level can be decreased by -20 dB so the volume can be reduced. The MUTING switch is convenient for listening in low level, because the volume control becomes more delicate when the switch is ON.

10 VOLUME CONTROL knob

This control adjusts left- and right-channel volume simultaneously. Set it for the required listening level.

11 INPUT INDICATORS

The indicator lights corresponding to the INPUT SELECTOR switch pressed.

12 TAPE MONITOR indicator

TAPE 2 — Lights when the TAPE 2 switch is pressed.

Operating instructions

Volume, tone, balance and loudness

1. Turn up VOLUME CONTROL to the required listening level.
2. Adjust TONE CONTROLS to suit your taste.
3. If an imbalance occurs (the left or right channel appears louder than the other) due to source imbalance or room acoustics, adjust BALANCE control to equalize the sound from both speakers.
4. If you customarily listen at low listening levels, set the LOUDNESS switch to ON. If not, set it to OFF position.

Tuner

1. Press the INPUT SELECTOR TUNER switch.
2. Operate the tuner as usual.
3. Adjust VOLUME CONTROL and TONE CONTROLS for your preference.

Turntable

1. Press the INPUT SELECTOR PHONO switch.
2. Set the turntable in operation.
3. Adjust VOLUME CONTROL and TONE CONTROLS for your preference.

CD/AUX jack

1. Press the INPUT SELECTOR CD/AUX switch to select output from the sources connected to CD/AUX jacks.
2. Operate unit connected to CD/AUX jacks according to the operating instructions of each unit.
3. Adjust VOLUME and TONE CONTROLS to your preference.

Tape decks

• Recording

1. Press the appropriate INPUT SELECTOR switch (PHONO, TUNER or CD/AUX).
2. Set up your tape deck for recording and set the recording level with the controls on your tape deck. The VOLUME and TONE CONTROLS on the amplifier do not affect the signal applied to the tape deck for recording.
3. Adjust listening level and tone at the amplifier to suit your listening preference.

• Tape monitoring

If tape deck is equipped with monitoring mechanism, you can monitor the sound quality of the recording in progress.

1. Press the TAPE 2 switch.
2. When recording starts, you can hear the recording sound.

• Tape playback

Press the TAPE switch or the INPUT SELECTOR CD/AUX switch to play back a cassette which has been recorded by the tape deck connected to the TAPE or CD/AUX jacks. Adjust listening level and tone at the amplifier to suit your listening preference.

When the sound cannot be heard even if the operation is correct, turn off the power switch and check if the speaker terminals are not short-circuited.

In case of difficulty

If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

AM, FM, PHONO or TAPE playback	Cause	Remedy
Power on but no sound.	<ol style="list-style-type: none">1. Power cord not plugged in.2. Poor connection at wall outlet. Power outlet inactive.3. VOLUME CONTROL set fully counter-clockwise.4. Speaker cords disconnected.5. Speakers switched off.6. No INPUT SELECTOR switch is in use.	<ol style="list-style-type: none">1. Check plug contact.2. Check outlet using a lamp or other appliance (outlet may be controlled by a wall switch).3. Set the control to your preference.4. Check speaker connections.5. Check speaker switch.6. Push one of the INPUT SELECTOR switches to select the required program.
Sound from left or right, but not both.	<ol style="list-style-type: none">1. Poor speaker connections.2. Defective speaker.3. BALANCE control set to one extreme or the other.	<ol style="list-style-type: none">1. Check connections at both ends of speaker cord.2. Reverse speakers. If problem stays with the same speaker, have speaker checked.3. Check setting of BALANCE control.
Record playback only	Cause	Remedy
Loud hum drowns out sound.	Poor ground connection at phono cable connections.	Check phono plugs, particularly outer-shell connections.
Low background hum.	Hum Picked up in turntable or turntable cables.	Keep cables away from power cords. Twist left and right cables together. Reverse AC plug of turntable. Connect ground wire between turntable and GND connector.
Background buzz.	TV signal picked up by phono cable (especially near transmitter).	Route phono cables to minimize buzz.
Howling noise at maximum volume settings.	Acoustic pickup from speaker.	Increase distance between speaker and turntable. Choose speaker locations carefully. Check turntable suspension.

Specifications

KA-57

Audio Section Rated Power Output

50 watts per channel minimum RMS, both channels driven, at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.09% total harmonic distortion.

Maximum Continuous power output (IEC/NF) from 63 Hz to 12,500 Hz, 0.7% T.H.D.

8 ohms.....55 W + 55 W
Both Channels Driven.....60 W + 60 W 8 ohms at 1,000 Hz
75 W + 75 W 4 ohms at 1,000 Hz

Music Power Output at 8 ohms100 W + 100 W

Total Harmonic Distortion

LINE input to SPEAKER output

(20 Hz to 20,000 Hz)0.09% at rated power into 8 ohms

(20 Hz to 20,000 Hz)0.03% at 1/2 rated power into 8 ohms

(1 kHz).....0.004% at 1/2 rated power into 8 ohms

Intermodulation Distortion.....0.03% at rated power into (60 Hz:7 kHz = 4:1) 8 ohms

Damping Factor40 (50 Hz at 8 ohms)

Power Bandwidth10 Hz to 100 kHz at 0.2% T.H.D. 8 ohms

Frequency Response10 Hz to 70 kHz, +0 dB, -3 dB

Input Sensitivity/Impedance

Phono2.5 mV/47 k ohms

Tuner, Tape play, CD/AUX.....150 mV/27 k ohms

Signal-to-Noise Ratio (IHF-A) (IHF'66)

Phono75 dB for 2.5 mV input

81 dB for 5.0 mV input

Tuner, Tape play, CD/AUX.....100 dB

Signal to Noise Ratio Unweighted at 50 mW (DIN)

Phono57 dB

Tuner, Tape play, CD/AUX.....59 dB

Channel Separation at 1 kHz (DIN)

Phono (Terminated with 2.2 kohms).....55 dB

Tuner, Tape play, CD/AUX (Terminated with 47 kohms + 250 pF).....44 dB

Phono Input Capacity (DIN).....220 pF

Phono Maximum Input Level.....170 mV, T.H.D. 0.05% at 1 kHz

Output Level/Impedance

Tape REC (Pin).....150 mV/330 ohms

Phono Frequency Response.....RIAA standard curve ± 0.5 dB (20 Hz to 20 kHz)

Tone Control

Bass ± 9 dB at 100 Hz

Treble ± 8 dB at 10 kHz

Loudness Control+8 dB at 100 Hz (at -30 dB VOLUME Level)

General

Power Consumption3 A (U.S.A. & Canada models) 200 W (Other countries)

Dimensions.....W: 420 mm (16-9/16")

H: 110 mm (4-5/16")

D: 277 mm (10-7/8")

Weight (Net)6.1 kg (13.4 lb)

KA-87

Audio Section Rated Power Output

100 watts per channel minimum RMS, both channels driven, at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.05% total harmonic distortion.

Maximum Continuous power output (IEC/NF) from 63 Hz to 12,500 Hz, 0.7% T.H.D.

8 ohms.....80 W + 80 W
Both Channels Driven.....65 W + 65 W 4 ohms at 1,000 Hz
110 W + 110 W 8 ohms at 1,000 Hz

Music Power Output at 8 ohms225 W + 225 W

Total Harmonic Distortion

LINE input to SPEAKER output

(20 Hz to 20,000 Hz)0.05% at rated power into 8 ohms

(20 Hz to 20,000 Hz)0.04% at 1/2 rated power into 8 ohms

(1 kHz).....0.004% at 1/2 rated power into 8 ohms

Intermodulation Distortion.....0.03% at rated power into (60 Hz:7 kHz = 4:1) 8 ohms

Damping Factor30 (50 Hz at 8 ohms)

Power Bandwidth10 Hz to 100 kHz at 0.2% T.H.D. 8 ohms

Frequency Response10 Hz to 70 kHz, +0 dB, -3 dB

Input Sensitivity/Impedance

Phono2.5 mV/47 k ohms

Tuner, Tape play, CD/AUX.....150 mV/33 k ohms

Signal-to-Noise Ratio (IHF-A) (IHF'66)

Phono75 dB for 2.5 mV input

81 dB for 5.0 mV input

Tuner, Tape play, CD/AUX.....100 dB

Signal to Noise Ratio Unweighted at 50 mW (DIN)

Phono57 dB

Tuner, Tape play, CD/AUX.....59 dB

Channel Separation at 1 kHz (DIN)

Phono (Terminated with 2.2 kohms).....55 dB

Tuner, Tape play, CD/AUX (Terminated with 47 kohms + 250 pF).....55 dB

Phono Input Capacity (DIN).....220 pF

Phono Maximum Input Level.....170 mV, T.H.D. 0.05% at 1 kHz

Output Level/Impedance

Tape REC (Pin).....150 mV/330 ohms

Phono Frequency Response.....RIAA standard curve ± 0.5 dB (20 Hz to 20,000 Hz)

Tone Control

Bass ± 9 dB at 100 Hz

Treble ± 8 dB at 10 kHz

Loudness Control+8 dB at 100 Hz (at -30 dB VOLUME Level)

General

Power Consumption4 A (U.S.A. & Canada models) 160 W (Europe, U.K. and Australia model)

Dimensions.....W: 420 mm (16-9/16")

H: 110 mm (4-5/16")

D: 277 mm (10-7/8")

Weight (Net)6.7 kg (14.7 lb) (Europe, U.K. and Australia model)

7.2 kg (15.8 lb) (Other models)

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.